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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,812	09/25/2006	Thomas Werner	12123-0005	3957
22902 7590 06/20/2008 CLARK & BRODY 1090 VERMONT AVENUE, NW SUITE 250 WASHINGTON, DC 20005				
EXAMINER WEST, PAUL M				
ART UNIT 2856		PAPER NUMBER		
MAIL DATE 06/20/2008		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/551,812

Applicant(s)

WERNER, THOMAS

Examiner

PAUL M. WEST

Art Unit

2856

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9, 16 and 18 is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-15 is/are rejected.
- 7) ☒ Claim(s) 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Werner (2003/0056572).
3. Regarding claims 1 and 2, Werner teaches a method for detecting leaks in a heat exchanger having discrete flow paths 12 and 13, the method comprising introduction of helium detection fluid into flow path 12, allowing air to flow through the other flow path 13, and detecting detection fluid which has leaked from the flow path 12 to flow path 13 (Par. 0012, Figure). Werner does not teach passing the helium detection fluid in different directions. However it would have been obvious to one of ordinary skill in the art to pass the detection fluid in different directions because it would provide a greater chance of detecting very small leaks.
4. Regarding claims 3 and 10, Werner does not specify which flow path is the heat exchanger fluid flow path and which one is the working fluid flow path. It would have been obvious to pass the detection fluid through either flow path or both flow paths at different times because whether a leak exists from one to the other will be determined either way and the choice is arbitrary.

5. Regarding claims 4,11 and 12, Werner teaches passing the helium detection fluid through flow path 12 at a higher pressure than the air in flow path 13 (Par. 0012).
6. Regarding claim 5, Werner does not teach a specific concentration of helium, however it would have been obvious to one of ordinary skill in the art to use any number of helium and air mixtures which have enough helium to be able to be detected by a detector, because any number of mixtures produce the same results.
7. Claims 6-8 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Werner in view of Shanley (5,574,213).
8. Regarding claims 6-8 and 13-15, Werner teaches all of the limitations as set forth above but does not teach introducing a fluorescent dye into the detection fluid. Shanley teaches inspecting various apparatus for leaks, including heat exchangers (Col. 3, lines 46-50) using a detecting fluid comprising helium and a fluorescent dye (Col. 3, lines 31-45 and 60-66) which is passed into the apparatus being tested, and wherein leaks are detected by detecting the fluorescent dye with a fluorescent responsive detection means, such as a black light (Col. 3, lines 31-45).

Allowable Subject Matter

1. Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
2. Claims 9,16 and 18 are allowed.

Response to Arguments

3. Applicant's arguments filed 9 April 2008 have been fully considered but they are not persuasive.
4. Applicant has argued that the passing of the detection fluid in two different directions is not obvious because there is no motivation to combine this limitation with the Werner reference. However, passing the test fluid in different directions is deemed to be obvious because it is merely a type of repetitive testing test. One of ordinary skill in the art would be motivated to perform repetitive testing in different directions because it provides more thorough results with less error.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAUL M. WEST whose telephone number is (571)272-8590. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hezron E. Williams/